

## **Joint Bachelor's/Master's Degree in Psychology with Specialization in Cognitive Psychology**

### **Statement of Purpose**

The purpose of this degree program is to provide training that will prepare students either for continuing doctoral study in cognitive psychology or for technical careers involving cognitive psychology in government and industry. Students will complete the requirements for an undergraduate major in Psychology and an interdisciplinary undergraduate Certificate in Cognitive Science as well as the requirements for a masters degree in the cognitive psychology graduate training program. Because of the demanding nature of this program, only highly qualified students will be admitted to this program. The maximum number of students admitted to the program in a given year is six, limited by the course capacity available in the required courses.

The program is structured so that students will start their graduate course work in the Fall of their fourth year. Specifically, both the Graduate Statistics and Research Practicum series of courses must be taken in the fourth year of study. The masters thesis is then completed during the fifth year.

### **1. Admission to the Program**

Students are required to apply at the end of their fourth semester of study to the joint program. The application form is equivalent to that used for admission to the standard graduate program (except that the graduate record examination is not required). The deadline for application is the graduation date for that semester. The applications will be reviewed by the faculty in the cognitive psychology program in the Psychology Department, which will serve as the admissions committee. This is the same admissions procedure used for the standard graduate program. The students will be notified of their admission before the start of their fifth semester of study.

In order to apply to the program the following is required:

1. A minimum cumulative grade point average of 3.2 for all course work and 3.5 for courses in Psychology will be required for admission to the joint program.
2. All MAPS deficiencies must be removed and the student must have completed at least 30 hours of the Arts and Sciences core course requirements before admission to the joint program
3. Three letters of recommendation from University of Colorado faculty will be required. At least one of the letters must be from a faculty member in the Department of Psychology. Transfer students will be allowed to submit letters from faculty members at their original institution. The letters should indicate that the student has sufficient ability and motivation to do intensive advanced work in psychology.

4. The student must have written agreement by a faculty member from the cognitive psychology program in the Department of Psychology to serve as the student's mentor. This mentor will normally be the student's advisor for both the undergraduate honors and masters theses.

Upon admission to this program, the students will be required to enter the Cognitive Science Certificate program.

## **2. Continuation in Program**

To continue in the program, the students must maintain an overall grade point average of 3.2 and a grade point average of 3.5 for courses in the Psychology Department. All courses for the Cognitive Science Certificate must be completed with grades of C- or better, and all graduate courses must be completed with grades of B- or better. Students must complete Psychology 7051/7061, Psychology 5741/5751, and at least 120 credit hours before the start of their fifth year of study.

## **3. Curriculum**

### **(I.) Undergraduate Courses Required (including those for the Cognitive Science Certificate)**

#### **(A.) Core Course Requirements:**

- (1.) Psychology 2145-3, Cognition and Perception Core
- (2.) Linguistics 2000-3, Introduction to Linguistics
- (3.) Computer Science 1300-4, Introduction to Computing
- (4.) Philosophy 2440-3, Symbolic Logic

#### **(B.) Basic Skills Requirements:**

- (1.) Mathematics 1300-5, Analytical Geometry and Calculus 1
- (2.) Computer Science 2270-4, Data Structures
- (3.) One of the following two-semester-plus lab sequences of natural science courses:
  - (a.) Chemistry 1051-4 & 1071-4, Introduction to Chemistry and Introduction to Organic and Biochemistry (lab included)
  - (b.) Chemistry 1111-5 & 1131-5, General Chemistry 1 & 2 (lab included)
  - (c.) Chemistry 1111-5 & 1071-4, General Chemistry 1 & Introduction to Organic and Biochemistry (lab included)
  - (d.) EBIO 1210-3 & 1220-3, General Biology 1 & 2 & EBIO 1230-1, General Biology Laboratory 1 **or** EBIO 1240-1, General Biology Laboratory 2
  - (e.) MCDB 1150-3 & 2150-3, Introduction to Cellular and Molecular Biology & Principles of Genetics & MCDB 1151-1, Introduction to Cell and Molecular Biology Laboratory **or** MCDB 2151-1, Principles of Genetics Laboratory
- (4.) Psychology 3101-4, Statistics and Research

(C.) PSYCH 3005-3/PHIL 3310-3/LING 3005-3/CSCI 3702-3, Cognitive Science, interdisciplinary course, with prerequisite of at least two of the four core cognitive science courses

(D.) Advanced Skills Requirements:

Psychology 4145/5145-4, Cognitive Psychology

& one of the following five courses in Experimental Psychology:

Psychology 3105-3, Experimental Methods in Psychology

Psychology 4155-4, Cognitive Neuroscience/Neuropsychology

Psychology 4165-4, Psychology of Perception

Psychology 4205-4, Psychology of Learning

Psychology 4175/5175-4, Computational Cognitive Neuroscience

& one of the following three additional Advanced Skills Sequences:

(1.) Linguistics 3100-3, Language Sound Structures

& two of the following five courses in Linguistics:

Linguistics 4100-3, Perspectives on Language

Linguistics 3430-3, Semantics

Linguistics 4420-3, Morphology and Syntax

Linguistics 4220-3, Language and Mind

Linguistics 4560-3, Language Development

(2.) Electrical and Computer Engineering 2120-5, Computers as Components

& Computer Science 3155-4, Principles of Programming Languages

(3.) Three of the following four courses in Philosophy:

Philosophy 2390-3, Philosophy and Psychology

Philosophy 3340-3, Epistemology

Philosophy 3480-3, Critical Thinking and Writing in Philosophy

Philosophy 4300-3, Philosophy of Mind

(E.) All other courses required for a major in psychology

(F.) Total minimum 36 hours in the four co-operating cognitive science departments (i.e Computer Science, Linguistics, Philosophy, Psychology)

### (II.) Graduate Courses Required

(A.) Graduate Statistics, Psychology 5741-4, Psychology 5751-4 (Required before the start of Year 5; Recommended for Year 4)

(B.) At least four of the six following proseminars:

(1.) Research methods (PSYC 5685, Section 1)

- (2.) Sensation and lower-level perception (PSYC 5685, Section 2)
- (3.) Higher-level perception, including object/face recognition, imagery, and attention (PSYC 5665, Section 1)
- (4.) Learning and memory (PSYC 5665, Section 2)
- (5.) Language (PSYC 5815, Section 1)
- (6.) Higher-level cognition, including problem solving, reasoning, judgment and decision making (PSYC 5815, Section 2)

(C.) A masters thesis approved by a Psychology Department faculty committee of 3 and 6 credit hours of masters thesis, Psychology 6951-6

(D.) Minimum of 30 hours in graduate level courses, including at least 12 hours at 5000-level or above.

### (III.) Other Requirements

(A.) Minimum 15 hours in upper division courses in the three co-operating cognitive science departments within the College of Arts and Sciences, with at least 9 hours outside the Psychology Department;

(B.) All courses for certificate with grades of C- or better; all graduate courses with grades of B- or better

(C.) An overall grade-point average of 3.2 or better

(D.) Transfer students must complete PSYCH 3005-3/PHIL 3310-3/LING 3005-3/CSCI 3702-3 and at least 9 other upper division hours on the Boulder Campus

(E.) Students must be full-time continuously registered students throughout the period of the degree

(F.) The maximum time limit for the joint degree is three years after the sophomore year. Students accepted to the program who do not complete the graduate requirements by the end of this period will be awarded a bachelors degree in psychology and a certificate in cognitive science, given that they have completed all of the necessary requirements.